FIG. 4 illustrates an array of modulators 31 positioned adjacent corresponding RAM cells 32 on a silicon substrate 11. This envisions a standard RAM design with extra area between RAM cells for the modulator elements. There are two types of RAMs, dynamic (DRAMs) and static (SRAMs). When using a DRAM, the modulator element replaces the storage capacitor used for memory. DRAMS have the advantage of having smaller cell sizes so that the fill factor, the percentage of the chip area covered by modulator are is maximized. SRAM cells have flip-flops that have one output that toggles between a 0 and a 1 state, i.e., 0 volts and the chip supply voltage. In this case, the output is connected to one of the modulator contacts, e.g., 20 in FIG. 1 with the other contact 19 grounded.

Amendments to the specification are indicated in the attached "Marked Up Version of Amendments" (page i).

In the Claims

Please cancel Claims 1 and 20-40.

Please amend Claims 2-11, 13, 15-16, and 18-19. Amendments to the claims are indicated in the attached "Marked Up Version of Amendments" (pages i-iii).

2. (Amended) The modulator of Claim 15 wherein the solid state electro-optic material comprises a ceramic material.

3. (Amended) The modulator of Claim 15 wherein the solid state electro-optic material comprises PLZT.

4. (Amended) The modulator of Claim 15 wherein the pixel circuits comprise an array of transistors formed on a silicon substrate.

5. (Amended) The modulator of Claim 15 wherein the electro-optic material comprises a thin film layer having a thickness of 2000 nm or less.